

## From Memorization to Transformation: Teachers Perspectives on Implementing Transformative Education in Junior High Schools and Senior High Schools/Vocational Schools in the 21st Century

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### INFORMASI ARTIKEL

Sejarah Artikel:  
Diterima: 2026-02-06  
Disetujui: 2026-04-05

### Kata kunci:

Pembentukan Karakter  
Pendidikan Transformatif  
Strategi Guru

### Keywords:

Character Building  
Transformative Education  
Teacher Strategies

### ABSTRAK

Tuntutan pendidikan abad ke-21 yang tidak lagi memadai jika hanya berorientasi hafalan, sehingga diperlukan pendidikan transformatif yang mendorong refleksi kritis, dialog, dan perubahan cara berpikir serta bertindak peserta didik. Tujuan penelitian ini ialah mendeskripsikan pendidikan transformatif dalam pembelajaran di SMP dan SMA/SMK, mengidentifikasi strategi guru, serta menganalisis faktor pendukung dan penghambat implementasinya lintas konteks sekolah. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus melalui wawancara semi-terstruktur kepada empat guru, kemudian dianalisis secara tematik. Temuan menunjukkan guru menekankan pembentukan karakter dan kompetensi holistik, menerapkan strategi active learning seperti diskusi, kuis, project-based learning, dan pemecahan masalah, serta memanfaatkan media campuran konvensional digital. Hambatan utama meliputi akses digital, keterbatasan ekonomi, dan pengaruh lingkungan (digital divide). Simpulan pendidikan transformatif telah diupayakan melalui praktik kolaboratif dan asesmen autentik, namun memerlukan dukungan ekosistem sekolah dan pemerataan akses.

### ABSTRACT

*The demands of 21st-century education are no longer adequately met by rote learning alone, necessitating transformative education that encourages critical reflection, dialogue, and changes in the way students think and act. The purpose of this study is to describe transformative education in junior high and high school/vocational school learning, identify teacher strategies, and analyze the factors that support and hinder its implementation across school contexts. The research used a qualitative approach with a case study design through semi-structured interviews with four teachers, which were then analyzed thematically. The findings show that teachers emphasize character building and holistic competencies, apply active learning strategies such as discussions, quizzes, project-based learning, and problem solving, and utilize conventional digital mixed media. The main obstacles included digital access, economic limitations, and environmental influences (digital divide). The conclusion was that transformative education had been attempted through collaborative practices and authentic assessment, but required the support of the school ecosystem and equal access.*

## Introduction

In the 21st century, a revolution driven by advancements in communication and information technology has transformed the dimensions of time and space in human life (Tamansiswa, 2022). As a result, the educational world faces challenges that can no longer be adequately addressed through rote-learning and the mere mastery of subject matter. The complexity of social issues (polarization, intolerance, disinformation, environmental crises) demands an education capable of transforming students' mindset from passively receiving information to actively reasoning, reflecting, and making ethical decisions in communal life. This direction is also relevant for junior high and high school levels because adolescence is a critical period for identity formation and the development of values; therefore, learning must provide space for critical thinking and the interpretation of real-world experiences, rather than merely cognitive achievements (Addzaky, 2024).

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Transformative education (transformative education/transformative learning) is an approach that emphasizes a shift in perspective or worldview through critical reflection and the process of reinterpreting learning experiences. (Baumgartner & Texas, 2019) explain that transformative learning refers to a transformation in how a person understands themselves and the world, which can be fostered through learning that encourages reflection and dialogue. In line with this, UNESCO defines transformative education as learning that equips learners with the knowledge, skills, values, and attitudes to responsibly address global challenges, including social-emotional and behavioral dimensions, not merely cognitive ones. Thus, transformative education does not stop at “knowing,” but aims to change how learners think, feel, and act within their social context.

In the context of junior high and senior high school education, transformative education represents a strategic step toward fostering citizens who are critical thinkers and possess a sense of civility, in line with the national curriculum’s goal of character development (Yani et al., 2024). Education that fosters critical reflection and dialogue is essential to help students evaluate information, understand diversity, and take an ethical stance on contemporary issues (Tjandra, 2025). UNESCO’s framework for the future of education positions human values, social justice, and solidarity as the foundation of educational practice. Furthermore, education that addresses social-emotional aspects can create a better learning environment and significantly enhance student participation (Dasar et al., 2024). Strong social skills also contribute to positive classroom interactions, which support meaningful learning processes (Raden Firman & Nurbudi Prijambodo, 2025).

However, implementing transformative education in secondary schools is not always easy. Common challenges include time constraints, pressure to complete the curriculum, a predominantly cognitive assessment culture, and variations in teachers’ capacity to facilitate reflective-dialogic learning (Anggraeni & Sunarso, 2025). Disparities in access to learning resources and professional development can also cause transformative education to remain mere jargon rather than a tangible practice in the classroom. At this point, the teacher’s perspective becomes crucial. Teachers are not merely implementers of the curriculum, but key actors who translate educational values, goals, and philosophies into concrete learning strategies (e.g., discussions of real-world issues, case studies, social projects, written reflections, and experience-based dialogues) (Novelina et al., 2025). For learning to be truly transformative, teachers need to create a safe space for dialogue, encourage openness to different perspectives, and facilitate critical reflection that challenges students’ assumptions.

Based on this discussion, this study is important because there remains a limited body of empirical research that directly captures teachers’ voices regarding the implementation of transformative education in junior high and senior high/vocational school settings, particularly through their daily teaching practices. Many writings discuss transformative education at the conceptual or policy level, but they have not sufficiently revealed how teachers interpret these concepts, what strategies they employ, and the obstacles and challenges they face in the classroom in reality. Therefore, this study uses interviews with four teachers from various school levels as a data basis to understand the implementation of transformative education from the practitioners’ perspective.

Thus, this study aims to: (1) describe transformative education in the context of learning at junior high schools and senior high schools/vocational high schools; (2) identify the teaching strategies used by teachers in implementing transformative principles; and (3) analyze the factors that support and hinder the implementation of transformative education based on teachers’ experiences across different school contexts. This focus on the perspectives of teachers across grade levels distinguishes this study from many previous studies, while aligning with UNESCO’s emphasis that educational transformation heavily depends on strengthening teachers’ capacities and a learning ecosystem that supports cognitive, social emotional, and behavioral dimensions in a balanced manner.

## Methods

This study employs a qualitative approach using a case study design. This approach was chosen because the study aims to explore and deeply understand teachers’ experiences in implementing transformative

education across school contexts, as well as to uncover implementation strategies and supporting and inhibiting factors based on narrative data. The research subjects included four teachers from junior high and senior high/vocational schools as primary informants, who were selected through purposive sampling because they were deemed to have experience relevant to the study's focus. In the initial stage, the researcher conducted a literature review on 21st-century learning and transformative education as a theoretical foundation. Field data collection was conducted through semi-structured interviews to explore teachers' understanding, classroom implementation practices, as well as the barriers and supports for implementation. The data obtained was then analyzed thematically by identifying, grouping, and interpreting the main themes that emerged from the interview results. Data analysis was conducted simultaneously from the data collection process and continued through the preparation of the report, so that findings could be refined as the research process progressed (Julioe, 2019).

## Result and Discussion

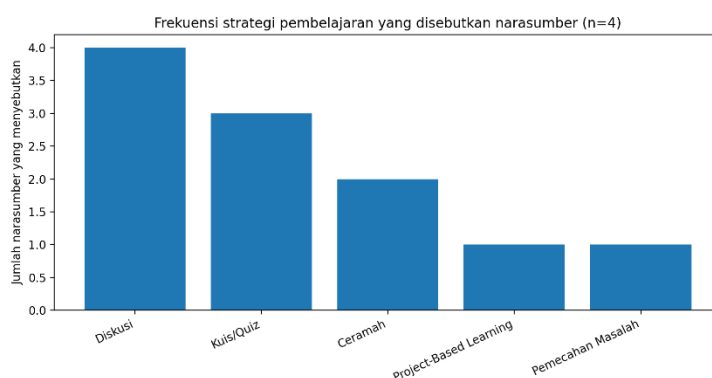
### Transformative Education in the Context of Learning in Junior High Schools and Senior High Schools/Vocational High Schools

Transformative education is essentially an educational approach that emphasizes cooperative learning to develop students' full potential, thereby fostering a more open, broad, and creative way of thinking (Al-Ghazali, 2018). Thus, transformative education is viewed as the most appropriate approach to address the various educational challenges of the 21st century (Marouli, 2021). Transformative education focuses on character building, the development of collaborative skills, and the enhancement of critical thinking skills among students (Saripudin, 2025).

Transformative education is aimed at developing critical awareness, increasing active participation, and encouraging the application of knowledge in real-life situations through collaborative and reflective learning (Javed, 2024). By providing students with the space to think critically, test assumptions, and take action, this approach can prepare the younger generation to face future challenges (Prihatin et al., 2023)

Based on this framework, the implementation of transformative education in this study was analyzed from the perspective of teachers as the primary agents of learning in schools. Data were collected through semi-structured interviews with four teachers at the junior high school and senior high school/vocational school levels, and were then analyzed thematically to identify similarities and differences in their perspectives. The findings are presented based on the aspects addressed in the interviews, including educational goals, learning outcomes, methods, media, the teacher's role, student autonomy, and assessment of learning success.

### The Implementation of Transformative Education from a Teacher's Perspective



**Capture 1**  
Strategic Frequency

The 21st century, often associated with the era of the Fourth Industrial Revolution, has had a far-reaching impact on the world of education. In the school context, teachers as implementers of

educational policy serve as the primary intermediaries who translate government directives through the application of 21st-century learning in the classroom (Yunianto et al., 2020). In line with this, students are not only guided toward academic achievement but also toward the development of character, creativity, communication, collaboration, and problem-solving skills through learning experiences closely aligned with the realities of their lives (Muhammad Nurrohman Jauhari, 2024).

In general, the interviewees view the purpose of education primarily as character building and holistic human development. In the context of PIPAS, the focus is on character building and holistic competencies, while in the context of junior high school social studies, the goal is stated as shaping students into agents of change through “character building.” Another informant emphasized education aimed at shaping students who are intelligent, of good character, and beneficial to society not merely cognitively focused but also grounded in religious values and ethics.

Regarding expected outcomes, the findings point to two main themes: (1) character and morality as the foundation (*a child’s moral excellence comes first because knowledge can be honed according to existing pathways, but morality is the starting point for the foundation of sustainable living*) and (2) readiness to face the demands of the times through creativity, adaptability, and a combination of hard skills and soft skills. There is also an emphasis that mastery of subject matter is viewed as a “means,” while character and creativity are considered the “direction and spirit” of education, shaping students into individuals of value who contribute meaningfully to society.

In terms of teaching methods, the dominant approach observed is active and participatory strategies. Discussions appear to be consistently used across contexts, both as the primary method and as the core of learning activities that actively engage students. The data shows that discussions are often combined with quizzes to maintain focus and quickly assess students’ understanding during the learning process. This pattern aligns with the direction of learning implementation that emphasizes active learning and student-centered practices, where collaborative activities and student engagement are key elements in the learning process (Baharuddin, 2023). Teachers also combine direct instruction with interactive activities, and in certain situations emphasize projects or problem-solving to ensure students do not merely “receive” the material but also process and produce something. This direction is consistent with research findings on PBL linked to the strengthening of the Pancasila Student Profile, which emphasizes collaboration, communication, critical-creative thinking, and authentic products as project outputs (Shofa & Teacher, 2021).

In terms of teaching aids and media, the data indicates a tendency toward a “mixed” use of both conventional and digital media. Projectors, LCD screens, and laptops are prominent as presentation media (e.g., PowerPoint) to support material explanations and classroom activities; however, textbooks and whiteboards are still used, and instruction remains book-centered. It is noted that teaching aids are rarely used directly, so media variety is more evident in learning resources (books/apps) than in the use of concrete or manipulative objects. This aligns with study findings regarding the digital learning support gap, particularly in different geographical contexts (urban–rural), which influence infrastructure, technical constraints, and the utilization of learning platforms (Yulianto, 2025)

Regarding the role of teachers, the findings were relatively consistent: teachers were positioned as facilitators, mentors, or guides, and were even referred to as inspirers. Some informants also emphasized that teachers serve as providers of a “framework for thinking” as well as lively discussion partners in the learning process. This reinforces a student-centered orientation: students are guided toward learning objectives. In line with this, regarding the aspect of learning freedom, the informants emphasized that students are more active and teachers provide guidance; however, this freedom is not “unlimited.” There are initial agreements and clear boundaries serving as classroom management mechanisms. It is important to emphasize this pattern: the freedom to learn that emerges in practice does not mean freedom that is unstructured; rather, it is structured through class contracts or rules so that discussion and collaboration activities continue to proceed in a conducive manner (Dalam & Alexander, 2024).

In terms of assessment and indicators of success, the instruments used reflect a combination of traditional assessment and process-based assessment. In the classroom, written tests are administered at the end of each unit, accompanied by oral assessments. In addition to evaluating final outcomes, teachers also emphasize process-based assessment from start to finish, including evaluating students' character and understanding throughout the learning process. What reinforces authentic assessment practices is the emergence of project-based learning (PBL) that encompasses both formative and summative components, including cross-curricular project collaborations spanning 2–3 subjects. This approach can be interpreted as a “new style” of assessment that not only measures mastery of content but also fosters interdisciplinary collaboration and 21st-century skills through tangible products or projects.

When linked to CPL indicators, assessment can be mapped out more clearly: (1) CPL knowledge is demonstrated through written or oral tests that measure conceptual understanding; (2) CPL skills are measured through project assignments, presentations, problem-solving, and product quality (performance rubrics); and (3) CPL attitudes/character are reflected in process-based assessments such as discipline, responsibility, active participation, discussion etiquette, and the ability to collaborate during projects and discussions. In this framework, formative assessment can be conducted through process observation, short quizzes, feedback, and periodic reflection during the project, while summative assessment can be implemented through final evaluations such as project products, presentations, portfolios, or final exams, ensuring that CPL is assessed more comprehensively and not solely based on test results.

### **Supporting and Hindering Factors in the Implementation of Transformative Education**

Supporting factors for the implementation of transformative education (learning that fosters changes in students' ways of thinking, attitudes, and actions through meaningful learning experiences) are supported by a tendency toward active and participatory learning practices. Research findings indicate that discussions are used consistently and are often combined with quizzes to maintain engagement and assess students' understanding throughout the learning process.

This pattern aligns with the guidelines for developing the Pancasila Student Profile Strengthening Project, which emphasizes projects as contextual, interdisciplinary collaborative learning (Nakhleh, 2022), and is reinforced by research findings that project-based learning can improve student learning outcomes as well as cognitive and affective skills (Zhang, 2023).

On the one hand, these barriers on the other hand, indicate that the implementation of transformative education is still constrained by quite significant contextual barriers, particularly students' limited prior knowledge, digital access, and economic factors (data plan requirements). These conditions result in unequal opportunities to maximize learning that requires the exploration of digital learning resources and technology-based project work; consequently, teachers need to adapt their strategies, media, and assignment formats to the students' capabilities and available access.

These findings align with the research discussion in the earlier section, which emphasizes that the readiness of facilities, digital literacy, and the socio-economic conditions of students are critical prerequisites for the success of innovative learning; in other words, when these prerequisites are unevenly distributed, learning transformation tends to proceed in a partial and adaptive manner. This is consistent with research in Indonesia showing disparities in support for online learning across different regions (infrastructure, technical challenges, platform utilization) (Yulianto, 2025), and reinforced by studies on the digital divide that emphasize that the gap is not merely an issue of access, but also involves disparities in capabilities and their impact on educational outcomes (Werfhorst et al., 2022)

## **Recommendations for Schools and the Government**

Schools need to strengthen the implementation of transformative education by restructuring learning toward deep learning that truly provides meaningful learning experiences through dialogue, reflection, and problem-solving based on real-world issues relevant to students. Research findings indicate that active and participatory strategies (discussions, quizzes, projects, problem-solving) are already emerging; thus, the next step is to make them more structured and consistent through cross-subject collaborative planning, performance rubrics, portfolios, and formative feedback so that assessment does not end with a final test but becomes a process that shapes students' ways of thinking and acting.

Given the variation in teachers' capacities including those without formal teacher education it is necessary to provide practice-based pedagogical support (job-embedded), such as teaching mentoring by core teachers, peer observation, instructional resource clinics, and training in facilitating reflective discussions, so that dialogic learning remains focused and psychologically safe. Additionally, schools need strategies to mitigate access gaps (offline learning resources/low data quotas, device loans, and digital-information literacy) so that meaningful learning and projects are not limited to students with strong access but are equitable for all.

The government needs to ensure that transformative education and deep learning can be implemented equitably across school contexts by strengthening structural support in two areas: (1) enhancing teacher quality and competencies, and (2) promoting equity in the learning ecosystem. Given that not all teachers have an educational background, recruitment and career development policies should establish minimum pedagogical competency standards (including the ability to manage dialogic-reflective learning, cross-curricular projects, and formative assessment) and provide clear pathways for professional development for non-education teachers.

Regarding the ecosystem, the government needs to reduce the primary barriers to digital and economic access by ensuring equitable connectivity, providing devices and data allowances for vulnerable groups, and strengthening digital literacy so that source-based and project-based learning does not widen existing disparities. Finally, to ensure schools have the "space" to implement transformative learning, evaluation policies must more consistently promote a balance between formative and summative assessments rather than being dominated by cognitive measures so that assessments of character, collaboration, and learning products/processes gain strong legitimacy.

## **Conclusion**

Based on interviews with teachers across junior high and senior high/vocational school contexts, this study shows that transformative education is understood and pursued as a form of learning that does not stop at mastering subject matter, but rather emphasizes character building, the development of holistic competencies, and changes in students' ways of thinking and acting so that they become more critical thinkers, adaptable, and civilized. In practice, teachers translate transformative principles through consistent active and participatory learning strategies, particularly discussions often combined with quizzes, and in certain situations, these are developed through problem-solving and project-based learning, thereby encouraging students to collaborate, reason, and produce meaningful products or works. Learning media tend to be a mix of digital devices such as projectors and laptops, which are used to support the presentation of material and classroom activities; however, textbooks and whiteboards remain dominant, while teaching aids are relatively rarely utilized, indicating that the transformation of learning is proceeding gradually in accordance with school conditions. In terms of roles, teachers position themselves as facilitators, mentors, and guides who create spaces for dialogue and encourage student engagement, with learning freedom that remains structured through class agreements and boundaries to ensure the collaborative process remains conducive. Assessment is also

moving toward greater authenticity through a combination of outcome-based assessment (written/oral tests) and process-based assessment, including evaluations of character, engagement, and understanding during the learning process. There is even a rise in formative and summative project-based assessments that enable collaboration across 2–3 subjects as a “new style” of assessment aligned with learning outcomes in knowledge, skills, and attitudes. However, the implementation of transformative education still faces significant barriers, such as students’ limited prior knowledge, digital access, economic conditions (data plans), and the influence of their environment and peer groups, resulting in transformative practices that are often adaptive and uneven. Thus, it can be concluded that transformative education has begun to take shape through collaborative, dialogic learning, and authentic assessment; however, its sustainability and reinforcement require support from the school ecosystem, equitable access, and strengthened teacher capacity so that the transformation does not remain merely a concept but truly becomes a daily learning practice.

## Acknowledgments

The author would like to express her deepest gratitude to Prof. Dr. Sumaryati M.Hum. for her guidance, feedback, and mentorship, which were invaluable in the preparation of this article. The author also extends gratitude to the teachers who were willing to serve as informants and shared their time, experiences, and valuable insights during the interview process, particularly Ms. Sekar, Ms. Citra, Ms. Tika, and Ms. Yuni. The participants’ cooperation and openness were crucial in obtaining the research data, enabling the successful completion of this article. May the kindness and assistance provided be rewarded accordingly.

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